

*Society of Petroleum
Evaluation Engineers*



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You, Me and the SEC

Presented by
Fred Richoux – Ryder Scott Company, L.P.
www.ryderscott.com



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Discussion Outline



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- History of SEC Definitions
- Concept Release – December 2007
- Proposed Changes to SEC Guidelines



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History of SEC Definitions

Background and History of SEC Oil & Gas Reserves Definitions



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- Current SEC guidelines adopted in 1978 (Rule 4-10 of Regulation S-X) and 1982 (Item 102 of Regulation S-K).

- SEC definitions static since 1978. A time of...
 - Relatively Stable Prices
 - Long Term Gas Contracts
 - U.S. Domestic Mindset

- Industry Trends Since 1978...
 - Changing reservoir evaluation technology with many advancements – reduced uncertainty
 - More widespread use of production sharing contracts
 - More use of probabilistic assessments
 - Global energy market

Concerns about Existing SEC Guidelines



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- Out of date
- Proved only
- No recognition of new technology to establish levels of certainty
- Dual standard for Proved Undeveloped
- Not aligned with other reporting standards worldwide
- Requires E&P companies to carry 2 sets of reserves
- Exclusion of activities related to the extraction of bitumen and other “non-traditional” resources from the definition of oil and gas producing activities
- Not aligned with SEC mission of informing investors with full disclosure of corporate asset value



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Concept Release – December, 2007

Securities and Exchange Commission

Concept Release On Possible Revisions to the Disclosure Requirements relating to Oil and Gas Reserves

Summary: *“The Commission is publishing this Concept Release to obtain information about the extent and nature of the public’s interest in revising oil and gas reserves disclosure requirements which exist in their current form in Regulation S-K and Regulation S-X under the Securities Act of 1933 and the Securities Exchange Act of 1934. The Commission adopted the current oil and gas reserves disclosure requirements between 1978 and 1982. In the decades that have passed since the adoption of these rules, there have been significant changes in the oil and gas industry. Some commentators have expressed concern that the Commission’s rules have not adapted to current practices and may not provide investors with the most useful picture of oil and gas reserves public companies hold.”*

Request for Comments



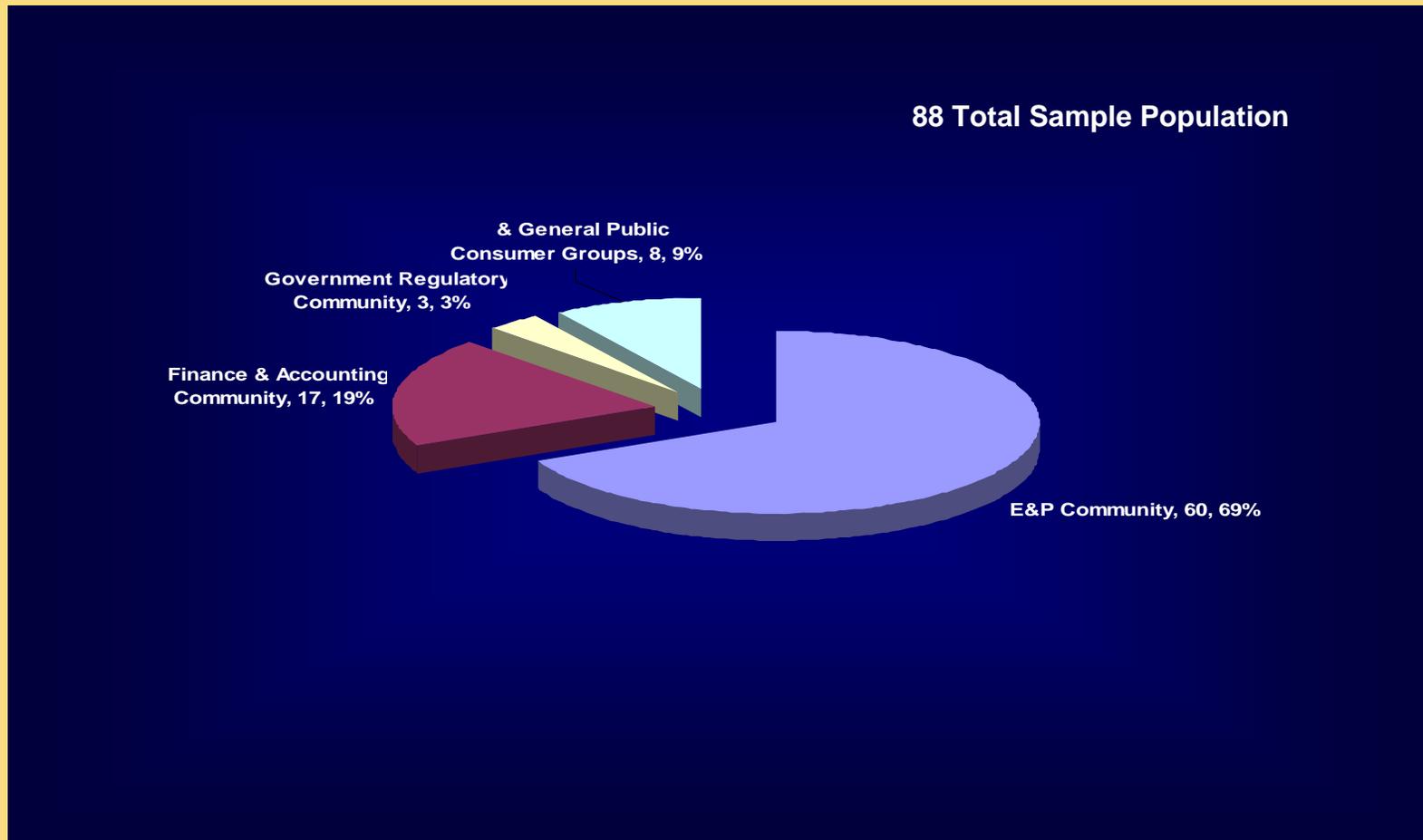
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- **Public Notice-December 12, 2007**
 - www.sec.gov/rules/concept/2007/33-8870fr.pdf
- **End of Period for Comments-February 19, 2008**
 - www.sec.gov/comments/s7-29-07/s72907.shtml
- **Concept release addressed 15 topical areas of questioning**
 - In addition to the areas identified for comment, the Commission sought any additional input on:
 - Other issues that respondents chose to address
 - Benefits and costs relating to investors, issuers and other market participants resulting from the possible revision to the disclosure rules pertaining to petroleum reserves

The Sample Population



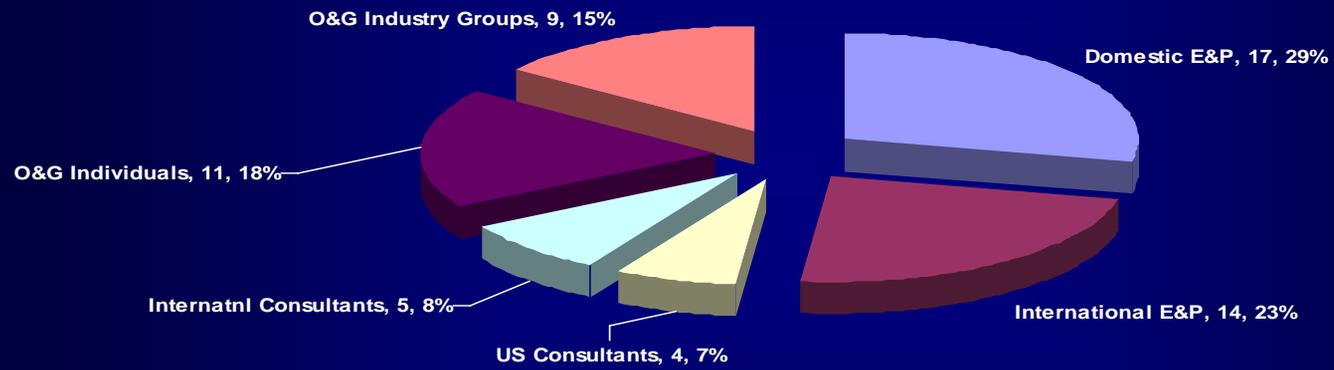
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E&P Community Mix



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Proposed Changes to SEC Guidelines

SEC Proposed Guideline Changes



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- In July, 2008 in response to the comments (80+ letters) on the December 2007 Concept Release, the SEC releases “Modernization of the Oil and Gas Reporting Requirements”.
- *“The revisions are intended to provide investors with a more meaningful and comprehensive understanding of oil and gas reserves, which should help investors evaluate the relative value of oil and gas companies. The proposed amendments are designed to modernize and update the oil and gas disclosure requirements to align them with current practices and changes in technology. The proposed amendments would also codify Industry Guide 2 in Regulation S-K, with several additions to, and deletions of, current Industry Guide items. They would further harmonize oil and gas disclosures by foreign private issuers with the proposed disclosures for domestic issuers.”*

“Modernization of the Oil and Gas Reporting Requirements”



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- The SEC establishes a 60 day period from the date of publication in the Federal Register for public comments to their proposal. Deadline for comments on September 8, 2008. After evaluating comments, the SEC will publish their final proposed changes.
- Each proposed rule change is accompanied by a series of questions addressed to commenters asking their opinion of the “need for” and “effectiveness of” the proposed rule change and any suggested modifications to improve the rule.
- The proposal would require companies to begin complying with the proposed disclosure requirements, if adopted, for registration statements filed on or after January 1, 2010, and for annual reports on Form 10-K and 20-F for fiscal years ending on December 31, 2009 and after.



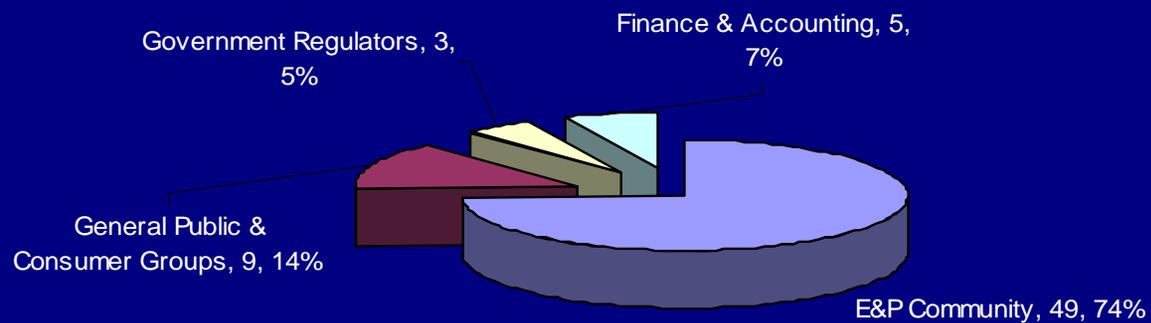
<http://www.sec.gov/comments/s7-15-08/S71508.shtml>

The Sample Population



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66 Total Sample Population

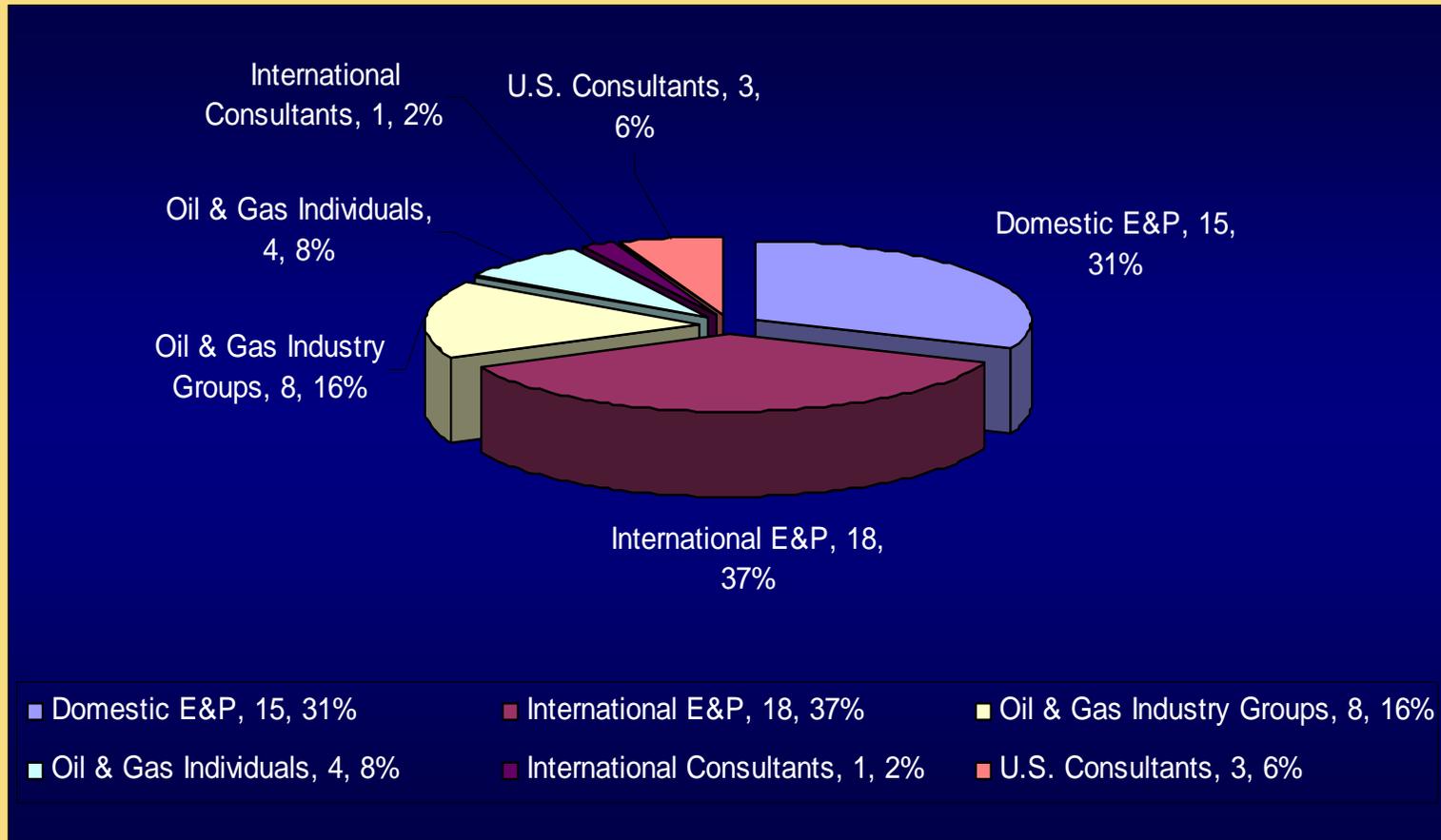


- E&P Community, 49, 74%
- General Public & Consumer Groups, 9, 14%
- Government Regulators, 3, 5%
- Finance & Accounting, 5, 7%

E&P Community Mix



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Sample Responses



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E&P Companies

Apache Corporation
Chesapeake Energy Corporation
Chevron Corporation
Devon Energy Corporation
Evolution Petroleum Corporation
Exxon Mobil Corporation
McMoRan Exploration Co.
Questar Market Resources, Inc.
Shell International B.V.
Southwestern Energy Prod. Co.
Talisman Energy, Inc.

Industry Groups

Cambridge Energy Research
CAPP
IPAA
SPE
SPEE

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What are some of these proposed rule changes to the reserves disclosure guidelines?

Summarizing the Proposed Changes



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- Year-end pricing moves from one day to 12 month average.
- Allow use of new “reliable” technology.
- Allow filing of non-proven reserves on a strictly voluntary basis.
- Modify the one offset rule for PUDs to use reasonable certainty.
- Time limit on the development of proved undeveloped reserves.
- Change the definition of “oil and gas producing activities” to include non-traditional sources where the final product is marketable hydrocarbons regardless of the extraction technology.
- Expand the treatment of improved recovery projects.
- Definition changes and additions – proved developed, reasonable certainty, deterministic and probabilistic estimates, continuous vs. conventional accumulations, and others.
- Include Subpart 1200 in Regulation S-K to set forth required disclosures regarding reserves, production, property and operations.

“Modernization of the Oil and Gas Reporting Requirements”



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Year-End Pricing

Current Guidelines:

- Use the one day price measured on the last day of the company's fiscal year that represents “current economic conditions”.

Proposed Guidelines:

- Suggesting an average price for the 12 months prior to the end of the company's fiscal year.
- Notwithstanding the proposal to change the single-day year-end pricing for the estimation of reserves, the SEC is not proposing to change the prices that are used for accounting purposes.
- Proposing to add a disclosure item permitting companies to include a price sensitivity case to be determined by the company.

Sample Responses: Prices



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Should the economic producibility of a company's oil and gas reserves be based on a 12-month historical average price?

E & P Companies

Apache – yes
Chesapeake – yes
Chevron – yes
Devon – yes
Evolution – yes
Exxon Mobil – yes
McMoRan – no (use futures prices)
Questar – yes
Shell Int'l – yes
Southwestern Energy – yes
Talisman – yes

Industry Groups

Cambridge -- yes
CAPP -- yes
IPAA -- yes
SPE -- yes
SPEE – favors average price of some length which was not specified

Consultants

Ryder Scott -- yes

Sample Responses: Prices



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Should the average price be based on a time period other than the fiscal year?

E & P Companies

Apache – yes, 3 months earlier
Chesapeake – yes, 1 month earlier
Chevron – no comment
Devon – yes, 3 months earlier
Evolution – yes, 1 month earlier
Exxon Mobil – yes, 3 months earlier
McMoRan – no (use futures prices)
Questar – no comment
Shell Int'l – yes, 3 months earlier
Southwestern Energy – no comment
Talisman – no comment

Industry Groups

Cambridge – yes, 3 months earlier
CAPP – yes, 3 months earlier
IPAA – no comment
SPE – no comment
SPEE – no comment

Consultants

Ryder Scott – yes, 3 months earlier

Sample Responses: Prices



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Should we require companies to use the same prices for accounting purposes as for disclosure outside of the financial statements?

E & P Companies

Apache – yes
Chesapeake – yes
Chevron – yes
Devon – yes
Evolution – yes
Exxon Mobil – yes
McMoRan – yes
Questar – yes
Shell Int'l – yes
Southwestern Energy – yes
Talisman – yes

Industry Groups

Cambridge – yes
CAPP – yes
IPAA – no comment
SPE – no comment
SPEE – yes

Consultants

Ryder Scott – yes

Sample Responses: Prices



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Should we require, rather than merely permit, disclosure based on several different pricing methods?

E & P Companies

Apache – no, it should not be permitted at all
Chesapeake – no, it should be optional
Chevron – no comment
Devon – no, it should be optional
Evolution – no, it should be optional
Exxon Mobil – no, it should not be permitted at all
McMoRan – yes
Questar – no comment
Shell Int'l – no, it should be optional
Southwestern Energy – no comment
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE – no comment
SPEE – no comment

Consultants

Ryder Scott – no, don't require it; optional is okay

“Modernization of the Oil and Gas Reporting Requirements”



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New Technology

Current Guidelines:

- SEC does not allow the use of certain new (alternative) technology widely used by industry or significantly limits it's use as a basis for determining the level of reasonable certainty needed to classify reserves as proved.

Proposed Guidelines:

- Proposing the allowance of technology that can be shown to be reliable in similar reservoirs under similar circumstances.
- Reliable technology – technology that, when applied using high quality geoscience and engineering data, is widely accepted in the oil and gas industry, has been field tested and has demonstrated consistency and repeatability in the formation being evaluated or in an analogous formation. Consistent with current industry practice, expressed in probabilistic terms, reliable technology has been proved empirically to lead to correct conclusions in 90% or more of its applications.

Down dip limits from pressure gradients

Seismic amplitudes

Defining productive continuity

Reservoir simulation

Sample Responses: New Technology



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Is our proposed definition of “reliable technology” appropriate?

E & P Companies

Apache – no, agree with the concept but don't like the definition

Chesapeake – no

Chevron – yes

Devon – yes

Evolution – no comment

Exxon Mobil – yes

McMoRan – yes

Questar – yes

Shell Int'l – yes, don't like the use of “widely accepted”

Southwestern Energy – yes

Talisman – yes

Industry Groups

Cambridge – no comment

CAPP – no comment

IPAA – no comment

SPE -- yes

SPEE – no comment

Consultants

Ryder Scott -- yes

Sample Responses: New Technology



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Should we change any of its proposed criteria, such as widespread acceptance, consistency, or 90% reliability?

E & P Companies

Apache – yes, needs to be principal bases instead of probabilistic
Chesapeake – yes, this is beyond reasonable certainty
Chevron – no direct comment but don't want to disclose what was used
Devon – no
Evolution – yes, too difficult to define
Exxon Mobil – no
McMoRan – no comment
Questar – no comment
Shell Int'l – yes, this would be extremely difficult to verify
Southwestern Energy – no
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE – no comment
SPEE – no comment

Consultants

Ryder Scott – see next slide

Sample Responses: New Technology



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Should we change any of its proposed criteria, such as widespread acceptance, consistency, or 90% reliability?

Ryder Scott – Yes, difficult to prove correct conclusions in 90% or more of applications.

Should require companies to be prepared to present compelling evidence supporting evaluation techniques and the underlying technologies

Sample Responses: New Technology



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Is the open-ended type of definition of “reliable technology” appropriate?

E & P Companies

Apache – no comment
Chesapeake – yes
Chevron – no comment
Devon – yes
Evolution – yes
Exxon Mobil – yes
McMoRan – yes
Questar – yes
Shell Int'l – yes
Southwestern Energy – yes
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE -- yes
SPEE – no comment

Consultants

Ryder Scott -- yes

“Modernization of the Oil and Gas Reporting Requirements”



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Non-Proved Reserves

Current Guidelines:

- SEC only allows registrants to file proved reserves

Proposed Guidelines:

- SEC will allow companies to include their probable and possible reserves in their filings on a strictly voluntary basis.
- Probable reserves are “those additional reserves that are less certain to be recovered than proved reserves but which, in sum with proved reserves, are as likely as not to be recovered.” (50% probability)
- Possible reserves “would include those additional reserves that are less certain to be recovered than probable reserves.” (10% probability)

Sample Responses: Probable & Possible Reserves



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Should we permit a company to disclose its probable or possible reserves, as proposed?

E & P Companies

Apache – no
Chesapeake – yes
Chevron – no comment
Devon – no
Evolution -- yes
Exxon Mobil – no
McMoRan – yes
Questar – yes
Shell Int'l – yes, no objection
Southwestern Energy – no
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE – no comment
SPEE – no comment

Consultants

Ryder Scott – yes

Sample Responses: Probable & Possible Reserves



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Should we require, rather than permit, the disclosure of probable or possible reserves?

E & P Companies

Apache – no
Chesapeake – no
Chevron – no comment
Devon – no
Evolution – no
Exxon Mobil – no
McMoRan – no comment
Questar – no
Shell Int'l – no
Southwestern Energy – no
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE – no comment
SPEE – no comment

Consultants

Ryder Scott – no

Sample Responses: Probable & Possible Reserves



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Should we adopt the proposed definitions of probable reserves and possible reserves?

E & P Companies

Apache – no
Chesapeake – yes
Chevron – no comment
Devon – no
Evolution – yes
Exxon Mobil – yes
McMoRan – yes
Questar – yes
Shell Int'l – no, use PRMS
Southwestern Energy – no
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE – yes, with some revisions
SPEE – no comment

Consultants

Ryder Scott -- yes

“Modernization of the Oil and Gas Reporting Requirements”



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Proved Undeveloped Reserves

Current Guidelines:

- SEC presently requires that for undeveloped locations more than one location away from an economic producer to be assigned proved reserves, the reserves must meet a standard of “certainty” that the reservoir is economically productive as opposed to “reasonable certainty” used for all other proved reserves.

Proposed Guidelines:

- The proposed revisions to the definition of “proved oil and gas reserves” would permit a company to claim proved reserves beyond drilling units that immediately offset developed drilling locations (at any distance) if the company can establish with “reasonable certainty” through the use of reliable technology that these reserves are economically producible.

Sample Responses: Proved Undeveloped Reserves



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Should we replace the current “certainty” threshold for reserves in drilling units beyond immediately adjacent drilling units with a “reasonable certainty” threshold as proposed?

E & P Companies

Apache – yes

Chesapeake – yes

Chevron – no comment

Devon – yes

Evolution – yes

Exxon Mobil -- yes

McMoRan – yes

Questar – yes

Shell Int'l – yes

Southwestern Energy – yes

Talisman – yes

Industry Groups

Cambridge – no comment

CAPP – yes

IPAA – no comment

SPE – yes

SPEE – no comment

Consultants

Ryder Scott – yes, need to further define “at any distance from productive units”

“Modernization of the Oil and Gas Reporting Requirements”



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Proved Undeveloped Reserves

Current Guidelines:

- While there is presently no specified time frame for development of proved undeveloped locations, the SEC takes exception to “stagnant” PUDs that remain on the books without being developed.

Proposed Guidelines:

- Propose adding a sentence to the definition of “proved reserves” that states that in order for reserves to be proved the project to extract the hydrocarbons must have commenced or it must be reasonably certain that the operator will commence the project within a reasonable time.
- The SEC has suggested that proved undeveloped reserves should be part of a development plan that ensures their drilling within 5 years, unless there are “unusual circumstances” that require a longer development time.

Sample Responses: Proved Undeveloped Reserves



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Is it appropriate to prohibit a company from assigning proved status to undrilled locations if the locations are not scheduled to be drilled for more than five years, absent unusual circumstances?

E & P Companies

Apache – no
Chesapeake – no
Chevron – no comment
Devon – yes
Evolution – no comment
Exxon Mobil – no
McMoRan – no comment
Questar – yes
Shell Int'l – no
Southwestern Energy – no comment
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – yes
IPAA – no comment
SPE – yes, except for complex long term developments
SPEE – no comment

Consultants

Ryder Scott – yes, need to further clarify “unusual circumstances”

“Modernization of the Oil and Gas Reporting Requirements”



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Extraction of Bitumen and other Non-traditional Resources

Current Guidelines:

- Current definition of “oil and gas producing activities” explicitly excludes sources of oil and gas from “non-traditional” or “unconventional” sources that involve extraction by means other than “traditional” oil and gas wells.

Proposed Guidelines:

- Revised definition of “oil and gas producing activities” would include the extraction of the non-traditional resources such as bitumen from oil sands, as well as oil and gas extracted from coalbeds and shales. The proposal is intended to shift the focus of the definition to the final product regardless of the extraction technology used. The proposed definition would state specifically that oil and gas producing activities include the extraction of marketable hydrocarbons, in the solid, liquid or gaseous state from oil sands, shale, coalbeds or other nonrenewable natural resources which can be upgraded into natural or synthetic oil or gas, and activities undertaken with a view to such extraction.

Sample Responses: Non-Traditional Resources



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Should we consider the extraction of bitumen from oil sands, extraction of synthetic oil from oil shales, and production of natural gas and synthetic oil and gas from coalbeds to be considered oil and gas producing activities?

E & P Companies

Apache – yes

Chesapeake – no comment

Chevron – no comment

Devon – yes

Evolution – no comment

Exxon Mobil – yes

McMoRan – no comment

Questar – no comment

Shell Int'l – yes

Southwestern Energy – no comment

Talisman – yes

Industry Groups

Cambridge – yes

CAPP – yes

IPAA – yes

SPE – yes

SPEE – no comment

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Ryder Scott -- yes

“Modernization of the Oil and Gas Reporting Requirements”



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Treatment of Improved Recovery Projects

Current Guidelines:

- Currently companies can include reserves from improved recovery projects only where techniques have been proved effective by actual production from projects in the area and in the same reservoir.

Proposed Guidelines:

- The proposed amendments would expand this definition to permit the use of techniques that have been proved effective by actual production from projects in an analogous reservoir in the same geologic formation in the immediate area or by other evidence using reliable technology that establishes reasonable certainty.

Sample Responses: Improved Recovery



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Should we expand the definition of proved undeveloped reserves to permit the use of techniques that have been proven effective by actual production from projects in an analogous reservoir in the same geologic formation in the immediate area or by other evidence using reliable technology that establishes reasonable certainty?

E & P Companies

Apache – no comment
Chesapeake – no comment
Chevron – no comment
Devon – yes
Evolution – no comment
Exxon Mobil – yes
McMoRan – no comment
Questar – no comment
Shell Int'l – yes
Southwestern Energy – no comment
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no
IPAA – no comment
SPE – yes, except remove the term
“immediate area”
SPEE – no comment

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Ryder Scott – yes, should also give
guidance on an “appropriate analogy”



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Professional Requirements



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- Minimum three years of practical experience (at least one in the estimation and evaluation of reserves) to be in charge of preparing reserve estimates
- Minimum ten years of practical experience (at least five estimating and evaluating reserves) to conduct reserves audit
- Must be a registered or certified professional engineer or geologist
- Bachelor's or advanced degree in engineering, geology or physical science

Sample Responses: The Reserve Estimator



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Should we require companies to disclose whether the person primarily responsible for preparing reserves estimates or conducting reserves audits meets the specified qualification standards, as proposed?

E & P Companies

Apache – no
Chesapeake – no comment
Chevron – no
Devon – no, just report whether it was done internally or by a third party
Evolution – no comment
Exxon Mobil – no
McMoRan – yes
Questar – no
Shell Int'l – no
Southwestern Energy – yes
Talisman – no comment

Industry Groups

Cambridge – no comment
CAPP – no comment
IPAA – no comment
SPE – yes
SPEE – no comment

Consultants

Ryder Scott – yes

Sample Responses: The Reserve Estimator



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Should we require that a third party prepare reserves estimates or conduct a reserves audit if a company chooses to disclose probable or possible reserves estimates?

E & P Companies

Apache – no comment

Chesapeake – no comment

Chevron – no comment

Devon – no

Evolution – no comment

Exxon Mobil – no

McMoRan – no comment

Questar – no

Shell Int'l – no

Southwestern Energy – no

Talisman – no comment

Industry Groups

Cambridge – no comment

CAPP – no comment

IPAA – no comment

SPE – no comment

SPEE – no comment

Consultants

Ryder Scott – no

